

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte JEFF SOLUM

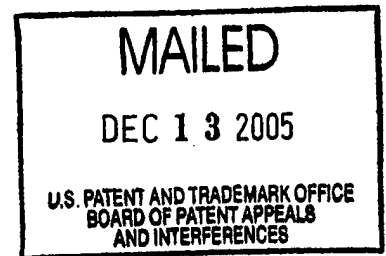
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Appeal No. 2005-2246  
Application No. 09/291,798

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ON BRIEF

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Before HAIRSTON, BLANKENSHIP, and MACDONALD, Administrative Patent Judges.

HAIRSTON, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1, 3 through 6, 8 through 17 and 19 through 28.

The disclosed invention relates to a method and system for controlling power consumption in a communications device by powering down at least a portion of a receiver of the communications device for a selected period of time after a data transmission has ended, and powering up the at least a portion of the receiver after the expiration of the selected period of time.

Claims 1 and 24 are illustrative of the claimed invention,  
and they read as follows:

1. A method for controlling power consumption in a communication device, the method comprising:  
powering down at least a portion of a receiver of the communication device for a selected period of time in response to an indication from a data source that a data transmission has ended;  
powering up the at least a portion of a receiver to detect incoming data when the selected period of time expires;  
receiving one or more packets when incoming data is detected, and  
wherein powering up the at least a portion of a receiver comprises powering up in time to allow detection of an attempted retransmission of a packet.

24. A method for controlling power consumption in a remote communication device in signal communication with a head end communication device, the method comprising:  
starting a counter for the remote communication device to time a predetermined power down period;  
powering down the remote communication device for the predetermined power down period;  
powering up the remote communication device to check for any incoming data;  
starting a counter for the head end communication device to time for substantially the same predetermined power down period after completion of a data transmission to the remote.

The references relied on by the examiner are:

Stifle et al. (Stifle)	4,633,462	Dec. 30, 1986
Tiedemann et al. (Tiedemann)	5,392,287	Feb. 21, 1995
Cutler	5,440,562	Aug. 8, 1995
Emmermann	5,740,540	Apr. 14, 1998
Medendorp et al. (Medendorp)	5,764,734	Jun. 9, 1998
Weston et al. (Weston)	5,799,069	Aug. 25, 1998
Kim et al. (Kim)	6,151,334	Nov. 21, 2000

(effective filing date Jun. 14, 1996)

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Claims 26 and 28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Medendorp.

Claims 1, 3, 5, 20 and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Medendorp in view of Kim.

Claims 24 and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Medendorp in view of Tiedemann.

Claims 17 and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Medendorp in view of Stifle.

Claims 4, 6, 8 through 12, 14, 15 and 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Medendorp in view of Kim and Tiedemann.

Claim 23 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Medendorp in view of Kim and Cutler.

Claim 13 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Medendorp in view of Kim, Tiedemann and Weston.

Claim 16 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Medendorp in view of Kim, Tiedemann and Stifle.

Claim 27 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Medendorp in view of Emmermann.

Reference is made to the briefs and the answer for the respective positions of the appellant and the examiner.

OPINION

We have carefully considered the entire record before us, and we will sustain the obviousness rejections of claims 1, 3 through 6, 8 through 17, 19 through 23 and 26 through 28, and reverse the obviousness rejection of claims 24 and 25.

Turning first to the obviousness rejection of claims 26 and 28, we find that Medendorp discloses a method of controlling power consumption in a remote communication device (i.e., cable access unit (CAU) 16) in signal communication with a head end communication device (i.e., cable control unit (CCU) 28) (Figure 1; Abstract; column 2, lines 36 through 39; column 7, lines 20 through 31). When a call enters the device for a subscriber, the CCU 28 will send out an alert to the appropriate CAU 16 on a system broadcast channel that a call is waiting (column 3, lines 23 through 26). If the call over the plain old telephone service (POTS) is for the telephone 40 at the receiver, then the ring<sup>1</sup> signal will be retransmitted repeatedly until the transceiver 114 in the CAU is powered up (Figure 5; column 4, lines 14 through 26). The transceiver is not powered up until the sleep timer is

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<sup>1</sup>In a plain old telephone service, a telephone ring signal is repeated/retransmitted until the telephone goes off hook.

less than or equal to zero, and the unique identifier in the alert data value 218 in the alert signal 202 is for the CAU that controls the telephone 40 (Figures 6 and 7; column 5, lines 7 through 32). The ring signal as well as the alert data signal are retransmitted repeatedly until the timer expires and the receiver is powered up to receive the telephone call (Figure 6; column 4, lines 63 and 64). Appellant's arguments (brief, pages 7 and 8) to the contrary notwithstanding, Medendorp sets a power down timer for the remote communication device CAU to a power down period so that the remote communication device will power up again in time to detect a retransmission of the ring as well as the alert data signal from the head end communication device CCU. Thus, the obviousness rejection of claims 26 and 28 is sustained.

Turning next to the obviousness rejection of claim 1 based upon the teachings of Medendorp and Kim, the examiner acknowledges (answer, page 5) that Medendorp does not disclose that a portion of the receiver is powered down in response to an indication from the source that data transmission has ended. The examiner cites Kim for a teaching of a system wherein "a receiver powers down when it receives a particular code word from the transmitter which indicates the end of the data transmission (see

column 7 lines 3-8)" (answer, page 5). According to the examiner (answer, page 5), "[i]t would have been obvious to one skilled in the art at the time of the invention to power down the receiver when the source sends it an indication that data transmission has ended, as taught by Kim, in the system of Medendorp because doing so would prevent wasting power (i.e. since the transmission of data has ended there is no need for the receiver to remain fully powered)." In view of the examiner's reasonable basis for combining the teachings of the references, and the common objective in the applied references of saving power by powering down as much as possible, we agree with the examiner that it would have been obvious to the skilled artisan for the data source to indicate to the receiver that data transfer has ended to permit the immediate power down of at least a portion of the receiver to save power. Appellant's argument (brief, page 9) that the existence of a power up code in Kim "indicates that the power down code is not used to power down the receiver" is without merit in that Kim expressly states that the code causes such a power down (column 7, lines 3 through 8). Any other teachings in Kim that may be contrary to those found in Medendorp are not pertinent to the rejection before us because the examiner only

relied on Kim for the limited teaching of a data source notifying the receiver when data transfer is completed so that the receiver can power down to save power. The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference. Nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to the skilled artisan. In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). Accordingly, the obviousness rejection of claim 1 is sustained.

Turning to claim 5, we agree with the examiner's findings (answer, page 6) concerning the repetitive powering up and powering down of the receiver for a selected period of time as indicated in Figure 8 of Medendorp. In view of the foregoing discussion of the teachings of Medendorp, and the examiner's findings, the obviousness rejection of claim 5 is sustained.

The obviousness rejection of claims 3 and 20 is sustained because appellant has not presented any patentability arguments for these claims that differ from the patentability arguments presented for claim 1 (brief, page 10).

The obviousness rejection of claim 22 is sustained because the power down period in Medendorp "is timed such that the remote unit will power up again in time to detect a retransmission from the head end" as indicated supra.

In the obviousness rejection of claims 24 and 25 based upon the teachings of Medendorp and Tiedemann, the examiner notes (answer, page 8) that Medendorp does not disclose a counter at the head end that operates in synchronism with the counter at the receiver. We agree with the examiner that it would have been obvious to the skilled artisan to place the counters in synchronism to "prevent timing problems and possible loss of data" as taught by Tiedemann (answer, page 9). On the other hand, we agree with the appellant's argument (brief, page 12) that "mere synchronization between receivers and transmitters is not what is called for by the claimed invention." To be exact, the claims require the counter for the head end to start to time for a predetermined power down period after completion of data transmission to the remote. The obviousness rejection of claims 24 and 25 is reversed because neither Medendorp nor Tiedemann teaches or would have suggested to the skilled artisan starting a counter at the head end after completion of data transfer to the receiver.



Turning to claims 17 and 19, we indicated supra that the head end in Medendorp retransmits the ring signal as well as the alert data signal until the telephone at the receiver goes off hook. In the plain old telephone service (POTS) discussed supra in connection with Medendorp, the off hook signal is an indication/acknowledgment to the head end that the ring signal as well as the alert data signal were received by the receiver. The acknowledgment teachings of Stifle are, therefore, merely cumulative to the acknowledgment teachings of Medendorp. Even if Medendorp did not disclose an acknowledgment teaching, we agree with the examiner's finding (answer, page 11) that it would have been obvious to the skilled artisan to provide such a signal to the head end in Medendorp for the benefits outlined in the rejection. In view of the foregoing, the obviousness rejection of claims 17 and 19 is sustained.

Turning to claims 4, 6, 8 through 12, 14, 15 and 21, appellant's arguments (brief, pages 14 through 16) for patentability of these claims are the same arguments presented for claims 1, 17, 20 and 26. Since those arguments were not convincing of the nonobviousness of claims 1, 17, 20 and 26, they fail to convince us the nonobviousness of claims 4, 6, 8 through

12, 14, 15 and 21. For this reason, the obviousness rejection of claims 4, 6, 8 through 12, 14, 15 and 21 is sustained.

The obviousness rejection of claim 23 is sustained because appellant has not presented any patentability arguments for this claim apart from the patentability arguments presented for claims 20 and 21.

The obviousness rejection of claim 13 is sustained because appellant has not presented any patentability arguments for this claim apart from the patentability arguments presented for claim 12.

The obviousness rejection of claim 16 is sustained because appellant has not presented any patentability arguments for this claim apart from the patentability arguments presented for claim 12.

The obviousness rejection of claim 27 is sustained because appellant has not presented any patentability arguments for this claim apart from the patentability arguments presented for claim 26.

#### DECISION

The decision of the examiner rejecting claims 1, 3 through 6, 8 through 17 and 19 through 28 under 35 U.S.C. § 103(a) is


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affirmed as to claims 1, 3 through 6, 8 through 17, 19 through 23  
and 26 through 28, and is reversed as to claims 24 and 25.


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No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136 (a)(1)(iv).

AFFIRMED-IN-PART

  
KENNETH W. HAIRSTON  
Administrative Patent Judge

*Howard B. Blankenship*  
HOWARD B. BLANKENSHIP  
Administrative Patent Judge

  
ALLEN R. MACDONALD  
Administrative Patent Judge

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